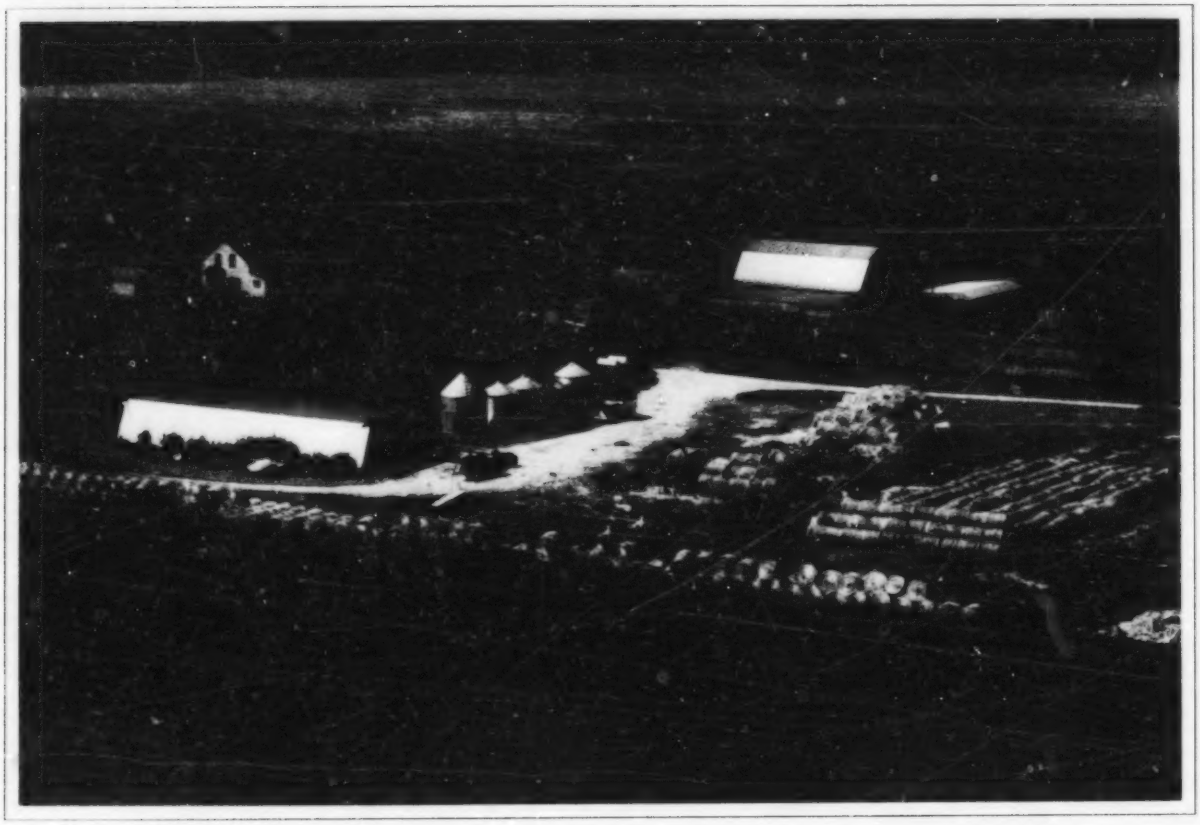
Manitoba Agricultural Review 2000



Manitoba Agriculture and Food
Program &
Policy Analysis

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DATA SOURCES:

Agriculture and Agri-Food Canada
Bank of Canada
Canadian Food Inspection Agency
Canfax
Manitoba Agriculture and Food
Manitoba Bureau of Statistics
Manitoba Agricultural Credit Corporation
Manitoba Hydro
Manitoba Chicken Producers
Manitoba Egg Producers
Manitoba Turkey Producers
Statistics Canada

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MANITOBA AGRICULTURAL REVIEW

INTRODUCTION

The major focus of this publication is on primary agriculture. However, farming obviously cannot exist in isolation. It is an integral part of the total agriculture-food system, which includes manufacturing, processing, transportation, distribution and wholesale/retail trade. Agriculture makes an important contribution to Manitoba's overall economic activity, both in its production and consumption. Between 1996 and 2000, agriculture and related industries contributed an average of 11 percent to the provincial Gross Domestic Product. Agriculture accounted for almost one dollar in ten of production in Manitoba's economy in 2000. For every dollar of net farm income produced in Manitoba, almost two dollars is generated in the overall provincial economy. In Manitoba, one job in eleven depends on agricultural production. As well as stimulating local employment, agriculture in Manitoba is directly responsible for thousands of jobs in other parts of Canada

PRIMARY AGRICULTURE

LAND RESOURCE

Manitoba extends 1 225 kilometres (761 miles) from the U.S. border to the Northwest Territories. Its area is 64.8 million hectares (160 million acres). The total land area is 55.4 million hectares (136.8 million acres), of which 14.6 million hectares (36.2 million acres) or 26.5 percent have some agricultural potential. Over 9.6 million hectares (23.6 million acres) of this area are non-organic soils; 5.5 million hectares (13.5 million acres) of these are suitable for sustained annual production of cultivated crops. Land use for agriculture in 1996 (both improved and unimproved land) totalled over 7.7 million hectares (19.1 million acres), or over 50 percent of total lands with agricultural potential.

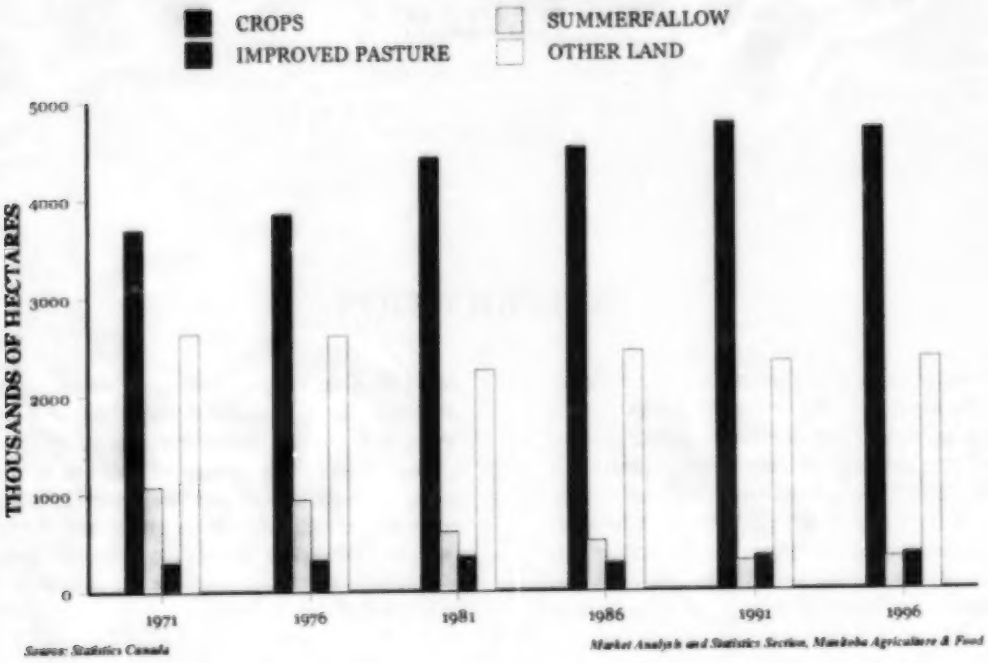
In 2000, almost 4.9 million hectares (12.1 million acres) were seeded to crops, while the area of summerfallow decreased to 0.15 million hectares (0.38 million acres). About 0.36 million hectares (0.88 million acres) were improved pasture and 1.65 million hectares (4.09 million acres) were unimproved lands used for pasture or hay.

Further opportunity to expand the agricultural land resource base through greater use of organic soil areas also exists. Approximately 5.1 million hectares (12.6 million acres) of organic soils are in the non-permafrost or fringe agricultural zone of Manitoba. Potentially 0.6 million hectares (1.5 million acres) of these soils could be used for grain or special crop production. Another 0.2 million hectares (0.5 million acres) of organic soils could be developed and brought into forage crop production. About 0.2 million hectares (0.5 million acres) of organic soils are currently under cultivation.

FARMS AND FARMERS

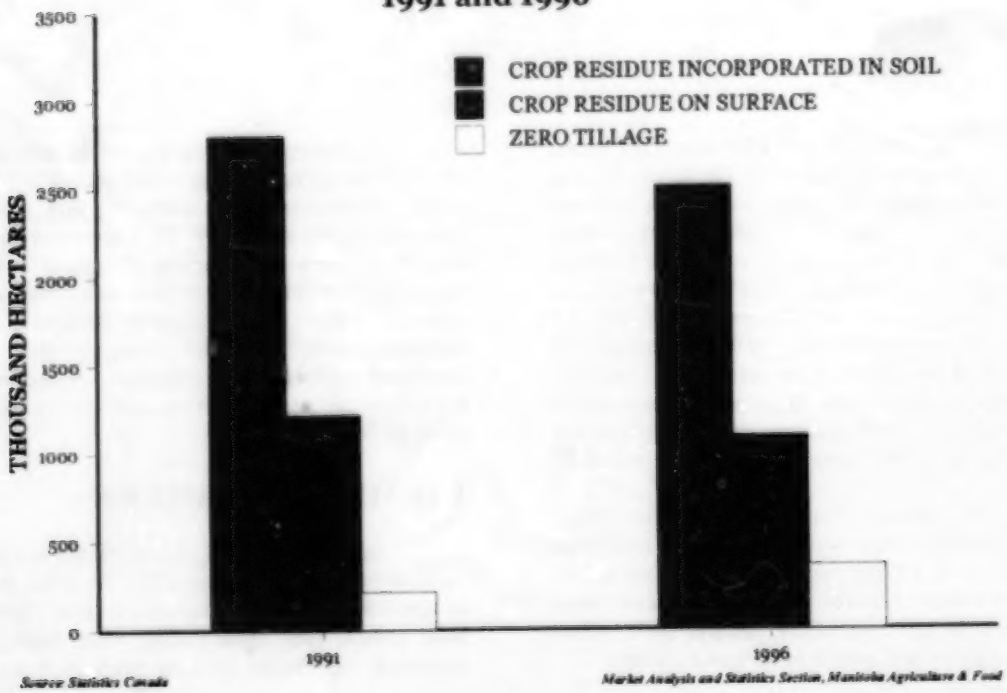
In 1996, there were **24,383 farms** in Manitoba, a decrease of five percent from 1991. By 2000, the number of farms declined to approximately 23,000. Although the trend towards farm consolidation, which began in 1941, continued, the decline in farm numbers from 1991 to

LAND USE 1971-1996

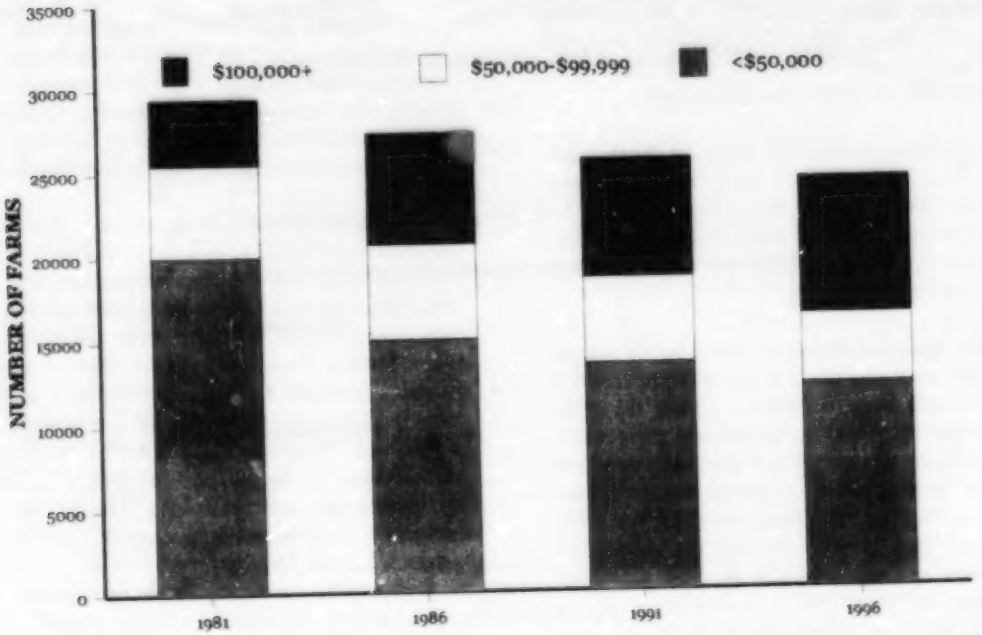


TILLAGE PRACTICES

1991 and 1996



FARMS CLASSIFIED BY FARM CASH RECEIPTS
1981-1996 (1995 constant $)



Source: Statistics Canada

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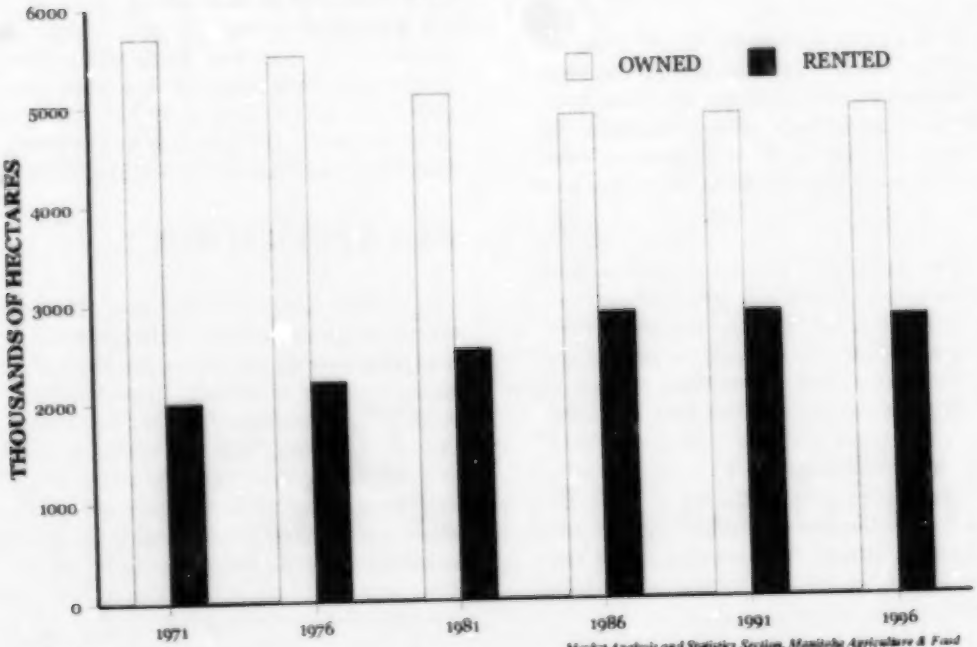
TENURE STATUS OF FARM LAND
1971-1996



Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

1996 was the smallest in 45 years. Smaller farms, or those with annual sales under $50,000, comprised just over half of all farms. The **average size** of Manitoba farms rose from 301 hectares (743 acres) in 1991 to 317 hectares (784 acres) five years later. Almost 64 percent of farmland was operator-owned while 36 percent was rented land.

Almost three-quarters of Manitoba farms were classified as either predominantly wheat, other grains and oilseeds or cattle farms in 1996. Wheat farms made up 15 percent of all farms with gross sales over $2,500, other grain and oilseed farms comprised 27 percent, while cattle farms were 31 percent of the total.

Family-operated farms accounted for 98 percent of farms in 1996, while non-family corporations represented 1.5 percent and other types, 0.5 percent. During the 1986-1996 period, more farm families entered into partnerships or other operating arrangements than in previous years, with over one-third being part of a partnership or family corporation in 1996. The **total farm population** in 1996 was 79,840, a rise of 0.7 percent from the 1991 level. This was the first time in sixty years that the farm population increased. About one Manitoban in 14 lived on a farm in 1996. In 1996, 7,180 or 22 percent of the 33,300 farm operators were female.

The 1996 Census of Agriculture showed that 18 percent of farm operators were less than 35 years old, a decrease of three percent from the 1991 level. Over 51 percent were 35 to 54, and 31 percent were 55 years and over. In 1991, 32 percent of farmers were over 55 years.

The 1996 Census showed that 10,247 Manitoba farms hired a total of 436,857 weeks of **full-time** and **part-time labour**. This represents a 23.4 percent increase in the number of weeks of hired labour since 1991, and a 7.8 percent decrease in the number of farms reporting hired labour. Almost 39 percent of those hiring help did so on a full-time basis.

In 1995, 10,675 or 32 percent of farm operators had paid **off-farm work**. Almost nine percent of operators were paid for working less than 20 hours per week off-farm, over 14 percent worked for 20 to 40 hours per week off the farm, while nine percent worked over 40 hours per week in paid off-farm employment in 1995. There were also 4,265 farm operators who operated a business other than farming. In 1998, farm families averaged $17,651 of **net farm operating income** compared to $20,554 in 1997. On average, **farm family total income** (including net farm income and non-farm income, but excluding capital cost allowance) was $54,344 in 1998, up by one percent from $53,853 in 1997.

FARM INCOMES

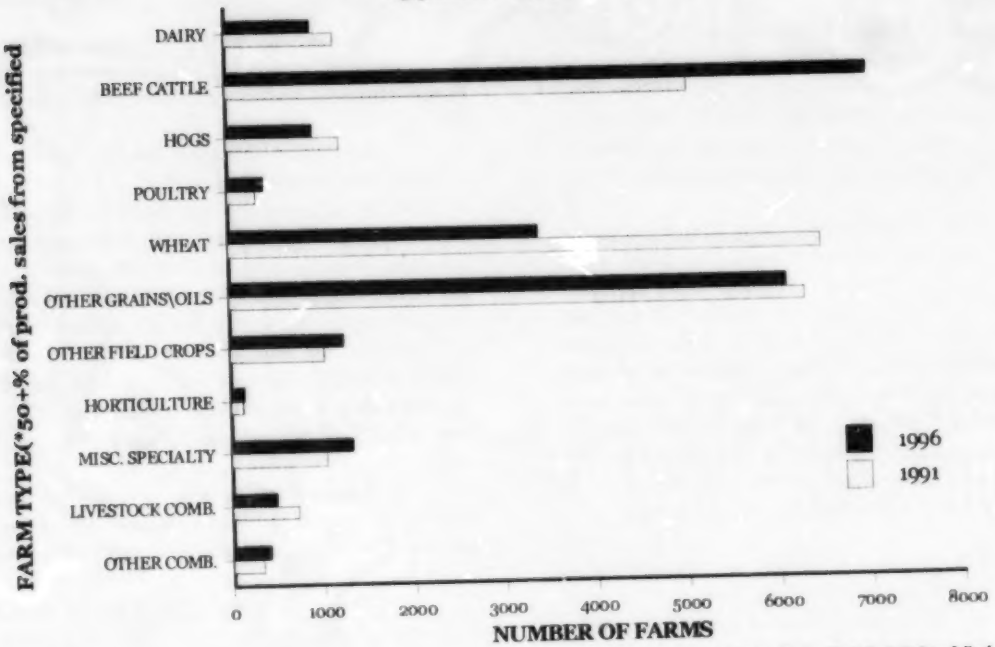
Farmers have very little control over the prices they receive for most of the commodities they produce. Changing production costs, dependence on the weather and variable commodity prices make farming a risky business. Government-assisted stabilization and insurance programs have helped moderate fluctuations in farm incomes.

Realized net farm income (cash flow) in Manitoba rose from $247 million in 1985 to $396 million in 1987, but decreased each year to almost $106 million in 1990. With increased government assistance to producers, farmers netted $195 million in 1992 and $316 million in 1993. Returns from the market place improved and assistance declined. As increased farm cash receipts offset rising expenses, realized net income rose from $134 million in 1995 to $428 million in 1997, but due to declining crop cash receipts, fell annually to $259 million in 2000. **Total net income** (realized net income adjusted for inventory change) per farm ranged from a low of $500 in 1980 to a high of $22,100 in 1996. Over the past decade, the variation in factors such as cash receipts, expenses, on-farm inventories and depreciation resulted in total net income decreasing to $4,100 per farm in 1991, but rising to $14,400 per farm in 1994. In 1995, rising expenses and lower crop inventory contributed to a significant drop in total net income per farm to $7,000. This was followed by record net income in 1996. In 1997, despite higher cash receipts, the large drop in inventory value reduced total net income per farm to $12,300. Conversely an increase in inventory value offset lower receipts to raise total net income per farm to $14,500 in 1998. Excess soil moisture prevented about ten percent of the crop from being seeded in 1999, which together with lower prices for most crops, caused total net income per farm to drop to $9,700. Increased livestock inventories and record farm cash receipts contributed to the higher total net income per farm of $19,700 in 2000.

FARM EFFICIENCY

Improved productivity in all sectors of the food system has greatly increased food production and lowered food prices over the past sixty years. Much of this increased efficiency is due to farmers. Each Manitoba farm feeds about 350 people, seven times as many as sixty years ago. In addition, prices of unprocessed foods have not increased as much as wages, so Manitoba consumers only have to work about a third of the time now as they did sixty years ago to buy Manitoba-produced beef, milk, eggs, vegetables and bread. In 2000, Manitobans spent only 9.7 percent of their disposable income on food and non-alcoholic beverages, down from 9.9 percent in 1999.

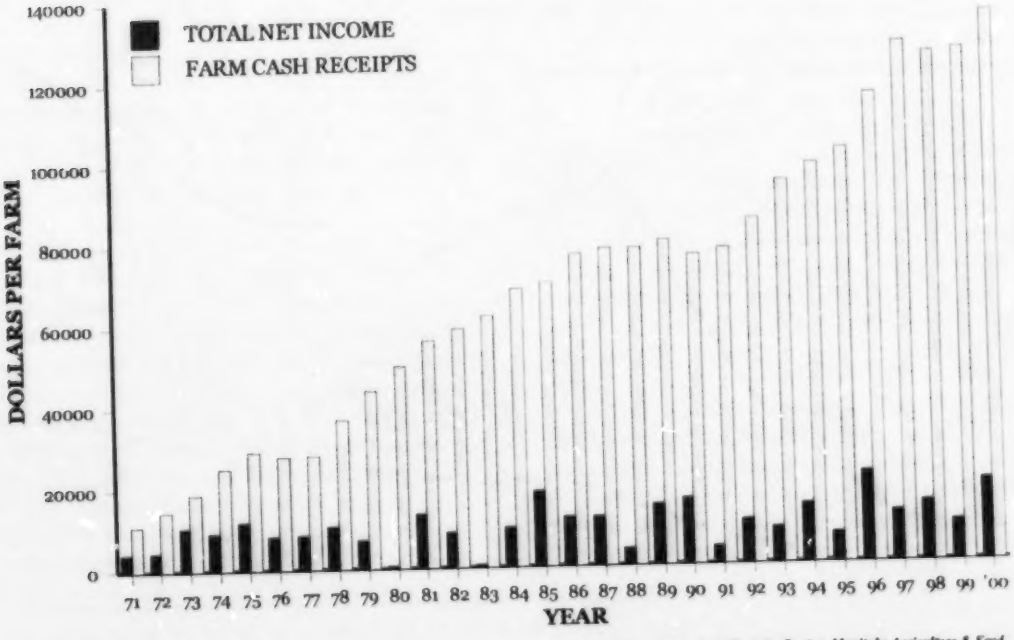
FARMS CLASSIFIED BY FARM TYPE*
1991 and 1996



Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

FARM CASH RECEIPTS AND TOTAL NET INCOME PER FARM, 1971-2000



Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

VALUE OF FARM CAPITAL

The **total value of capital** used by Manitoba farmers in 2000 was almost $14.8 billion, or $643,000 per farm operation. This included almost $9.8 billion (66.1 percent) for land and buildings, more than $3.3 billion (22.5 percent) for machinery and equipment and approximately $1.7 billion (11.4 percent) for livestock and poultry.

Between 1971 and 1981, rising land prices caused the value of Manitoba farm land to more than double every five years. However, between 1981 and 1988, high real interest rates and low commodity prices affected land prices, resulting in a 14 percent decrease in the total value of agricultural land. Farm machinery sales in the province also suffered during these years. Crop prices improved in 1988, and from 1988 to 1990, the value of farm land rose by 18 percent, but declined again by one percent in 1991 before rising by 36 percent over the next nine years in response to the improved profitability of most farms.

Variable commodity prices and the significant fluctuations in farm profitability from year to year have resulted in a shift in the distribution of farm capital value. Land and buildings accounted for 66.1 percent of the total value in 2000, compared with 65.2 percent in 1999, and 75 percent in 1981 for the same components.

The **average value of farmland and buildings** in Manitoba in 2000 was $1,213 per hectare, a one percent increase from the revised 1999 level of $1,201 per hectare.

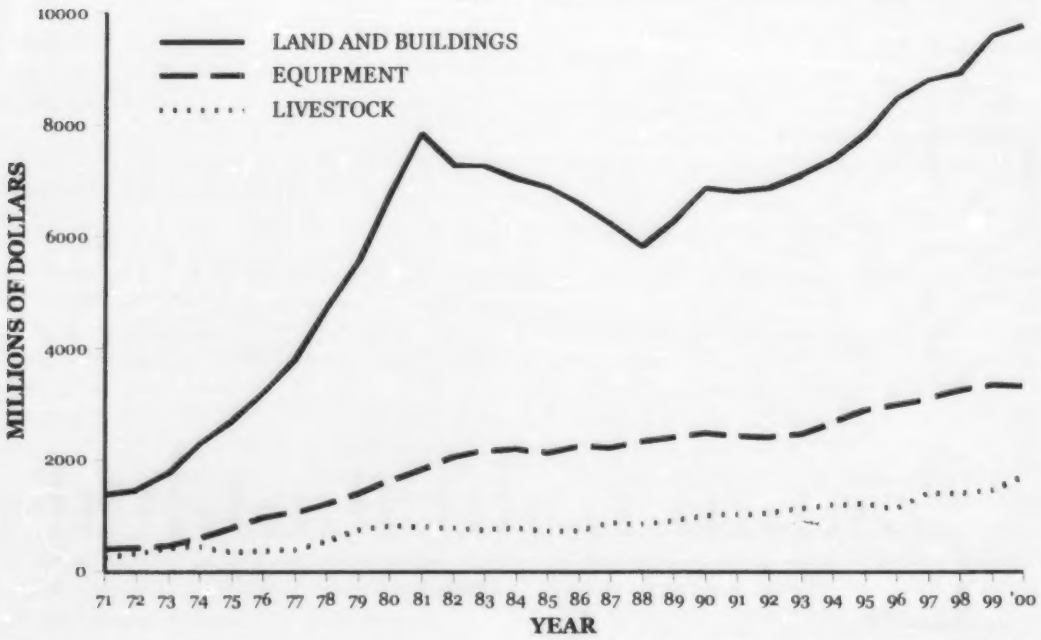
Most recent data show that Manitoba farmers had **average farm assets** of about $785,354 in 1999, **liabilities** of $158,784 and **average net worth** of $626,571. Long-term liabilities were more than three-quarters of total liabilities. Average net worth of hog farms increased by $135,110 from $1,096,285 in 1997 to $1,231,395 in 1999. The average net worth of grain and oilseed farms rose by $32,468 over the two years to $645,391 in 1999. The growth of various livestock sectors and the potato industry has resulted in **average net new investment** of $52,605 per farm in 1997 and $40,477 per farm in 1999.

Farmer-owners' **return on assets** has varied from a low of 0.3 percent in 1983 to a high of 6.5 percent in 1985 and was 4.5 and 3.8 percent in 1998 and 1999 respectively.

In 1999, the **ratio of farm equity to assets** was estimated at 0.80. By enterprise type, grain, potato, dairy, hog, poultry and beef operations had equity to asset ratios of 0.81, 0.74, 0.82, 0.72, 0.81 and 0.82 respectively in 1999, most of which were lower than in 1997.

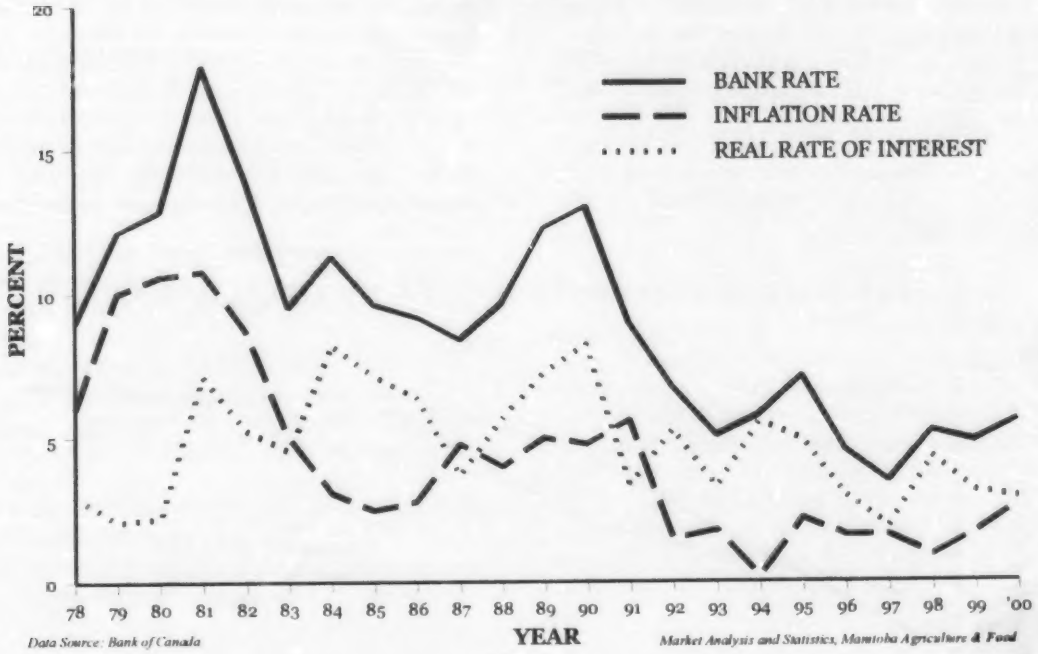
VALUE OF FARM CAPITAL

1971-2000



Source: Statistics Canada *Market Analysis and Statistics Section, Manitoba Agriculture & Food*

BANK RATE, INFLATION RATE, REAL RATE OF INTEREST
1978-2000



Chartered banks financed 39.6 percent of the **total farm debt** in Manitoba in 2000. The provincial and federal governments, through agencies such as MACC (Manitoba Agricultural Credit Corporation) and FCC (Farm Credit Corporation), financed 7.1 and 16.9 percent of the provincial farm debt respectively, while government advanced payment programs accounted for 5.0 percent. Credit unions financed 20.4 percent of farm debt, while personal sources of credit, along with trust and insurance companies, amounted to 10.3 and 0.7 percent respectively.

Established farmers, who own their land and have low debt-to-asset ratios, are better equipped to survive the variability of agricultural profitability, particularly during periods of low commodity prices. Younger and beginning farmers with low equity and high debt face a more difficult financial situation. New operators may have limited finances and their low equity makes them a high risk to lending institutions. Increasingly, **MACC** has become a vital source of financing for these higher-risk farmers. In 1999-2000, 667 long-term loans were approved by MACC, totalling $50.6 million. Most loans were made for land (46%) or debt consolidation (38%). Almost $33 million long-term loans went to farmers under 40 years of age.

The Producer Recovery Program was introduced in 1998-1999 to assist producers to offset working capital deficits and to settle accounts payable where severe declines in farm income, typically due to depressed grain and/or hog prices, had jeopardized the viability of their farming operations. During 1999-2000, 367 producer recovery loans were approved totalling $18.3 million, following the 281 loans for almost $14.5 million made in the previous year.

Operations wanting to diversify often experience difficulty obtaining suitable financing due either to equity shortfalls or to being unable to meet traditional security requirements. Since 1995-96, MACC's *Diversification Loan Guarantee Program* has assisted producers either diversify existing operations or add value to agricultural commodities. By the end of 1999-2000, 58 guarantees were approved and in place for loans from private lenders totalling $53.3 million.

As farms become larger, operating debt financing becomes more important in the cost of operation. The **interest** paid **on farm debt** in 2000 was estimated at $223.8 million, up by 18.6 percent from 1999. Interest on debt as a percentage of total farm operating expenditure decreased from 16.8 percent in 1981 to 6.7 percent in 1997, but rose to 8.9 percent in 2000. As interest forms a relatively large portion of total farm operating expenditures of some farms, it appears that a high equity position may be as important as operating efficiency to assure continued solvency.

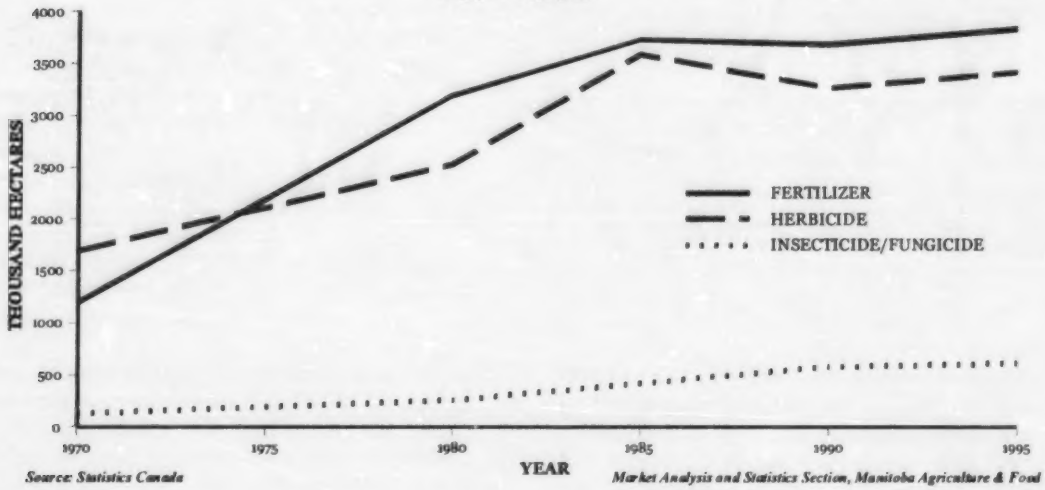
OTHER AGRICULTURAL EXPENDITURES

Manitoba farmers have substantial operating expenditure requirements for such items as feed, pesticides, fertilizer and fuel. In 1995, total net farm expenses (which included net operating expenses and depreciation) were $2.40 billion. Five years later, the 2000 total net farm expense was $2.86 billion, up 19.3 percent from 1995 and 6.2 percent higher than in 1999. It is estimated that 2001 total net farm operating and depreciation expenses could exceed $3 billion for the first time.

Fertilizer: The amount of fertilizer sold in Manitoba went from 911 800 tonnes in 1999 to 914 600 tonnes in 2000, a rise of 0.3 percent. An increase in fertilizer prices combined with increased use caused total fertilizer expenditures to go up by 7.2 percent from $294.2 million in 1999 to $315.4 million in 2000. Manitoba farmers used 8.3 percent more fertilizer between 1995 and 2000, with total fertilizer expenses increasing by 4.4 percent over the five-years.

FERTILIZER AND PESTICIDE USE BY TOTAL AREA

1970-1995



Source: Statistics Canada

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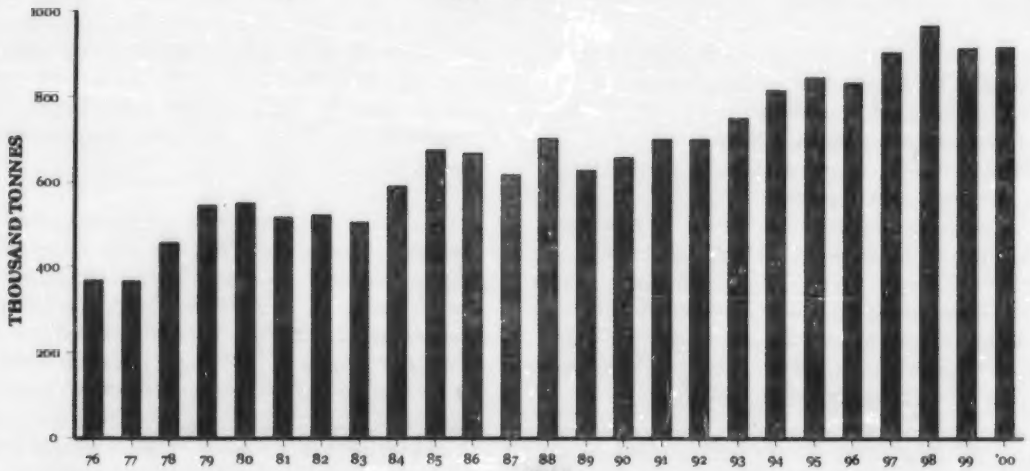
FERTILIZER SALES

1976-2000



Data Source: Agriculture and Agri-Food Canada, Western Canada Fertilizer Assn.

Market Analysis and Statistics Section, Manitoba Agriculture & Food

Pesticides: Total farm purchases of pesticides in 2000 were estimated at $230.4 million, an increase of 7.1 percent from 1999 and a rise of 24.5 percent from 1995.

Fuel: The total farm expenditure for diesel, gasoline and lubricants in 2000 was $196.3 million, up by 23.5 percent from 1999. Farm fuel increased from 10.8 percent of net farm operating expenses in 1981 to peak at 12.5 percent in 1983, declined to 6.5 percent in 1998 and 6.7 percent in 1999, but rose to 7.8 percent in 2000.

Repairs: In 1995, Manitoba farmers spent $191.5 million on machinery/equipment repairs. By 2000, expenditures were about $217.7 million, a rise of 4.0 percent from 1999.

Buildings: Farm expenditure for building and fence repairs in 2000 was $49.9 million, one percent more than in 1999 and 10.1 percent above the 1995 level. Many farm buildings have been fully depreciated, but still remain serviceable.

Livestock: Livestock expenditures by Manitoba farmers in 2000 were estimated at $386.2 million. This was up by 7.2 percent from 1999 expenditures of $360.4 million due to higher costs for livestock purchases and commercial feed. In comparison, the total expenditure in 1995 was $286.5 million. Livestock expenses in 2000 represented 15.4 percent of operating expenditures.

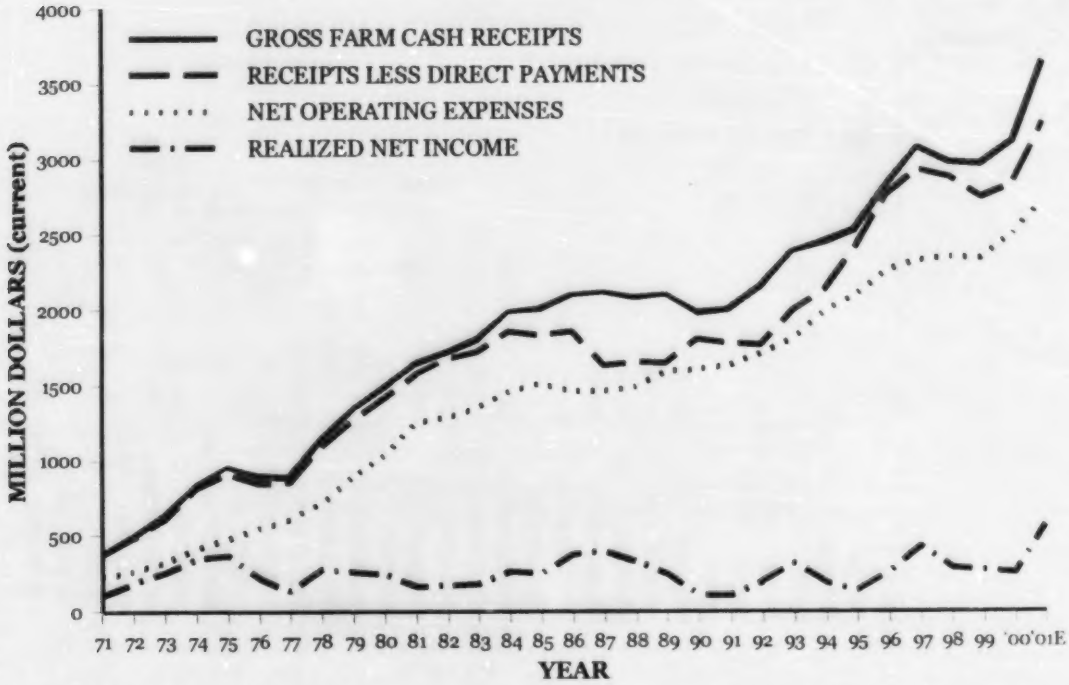
Seed: In 2000, Manitoba farmers spent $103.5 million on seed compared with $82.2 million in 1995 and $99.5 million in 1999. Seed costs in 1999 and 2000 accounted for 4.3 and 4.1 percent of operating expenditures respectively.

Cash Wages, Room and Board: Wages paid to farm and family workers amounted to $205.2 million in 2000, up by 3.0 percent from $199.2 million in 1999. Five years earlier in 1995, farm wages totalled $164.5 million.

Other Expenditures: Other farm expenditures include property taxes, rentals, insurance, electricity, telephone, heating fuel, legal and accounting fees, etc. Of the total $2.50 billion of total net operating expenditures in 2000 (excluding depreciation), other expenditures amounted to $575.8 million or 23.0 percent of the total. The increase of 2.8 percent from 1999 was partly due to a rise of 36.5 percent in the cost of heating fuel in 2000. In 1995, other expenditures accounted for $515.5 million, or 24.7 percent of the total.

FARM INCOME AND EXPENSES

1971-2001



Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture

AGRICULTURAL PRODUCTION

Manitoba's farm cash receipts were estimated at $3.11 billion in 2000, an increase of 5.3 percent from $2.96 billion in 1999. Almost 40.7 percent of these receipts were derived from crop production, while 50.2 percent came from livestock production, including the production of honey, fur and P.M.U. The remaining 9.1 percent came from direct payments to producers, such as Crop Insurance, Net Income Stabilization Account (NISA), Agricultural Income Disaster Assistance (AIDA), Canada/Manitoba Adjustment Program, dairy supplementary payments, etc.

Crops

Although southern Manitoba has the climate and soil to grow a wide range of crops, the traditional **grain crops** of **wheat** and **barley** occupied 43 percent of the more than 4.7 million hectares of harvested crop area in the province in 2000. The total harvested area was up by 10.1 percent from 1999, when about 0.4 million hectares were not seeded due to excessive moisture. Wheat and barley contributed about 40 percent of total farm cash receipts in the early 1980s. However, low grain prices caused this contribution to decline in the mid-1980s and early 1990s. In 1999 and 2000, the share fell to 18 and 16 percent respectively. Excess moisture reduced the area seeded to wheat and barley in 1999. In 2000, the harvested **wheat** area rose by 23.5 percent to 1.57 million hectares. Thus, wheat production increased by 35.1 percent to 4.27 million tonnes in 2000. The 19.0 percent rise in harvested area to 481 600 hectares and higher yields raised **barley** output by 33.5 percent to 1.62 million tonnes in 2000.

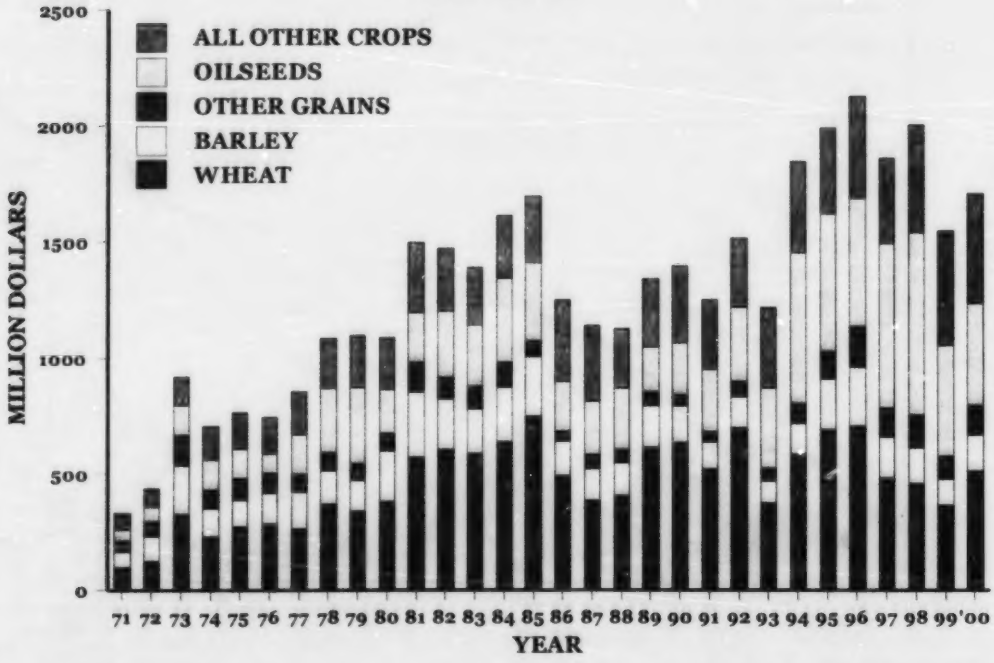
Manitoba produces other grain crops, such as **oats, rye** and **mixed grains**. These crops were harvested from 348,000, 22,300 and 6,100 hectares respectively in 2000.

Flaxseed has been a relatively important crop since the 1940s, but other **oilseed crops**, such as canola and sunflowers, have gained prominence since the early 1970s. Despite reduced plantings in 2000, the province produced 30 percent of Canada's flaxseed, 21 percent of the national canola crop and 85 percent of the country's sunflowerseed.

A combination of lower yields and a decrease of 14 percent in harvested area to 174 000 hectares reduced the **flaxseed** crop by 24 percent to 205 700 tonnes in 2000.

FARM VALUE OF CROP PRODUCTION

1971-2000



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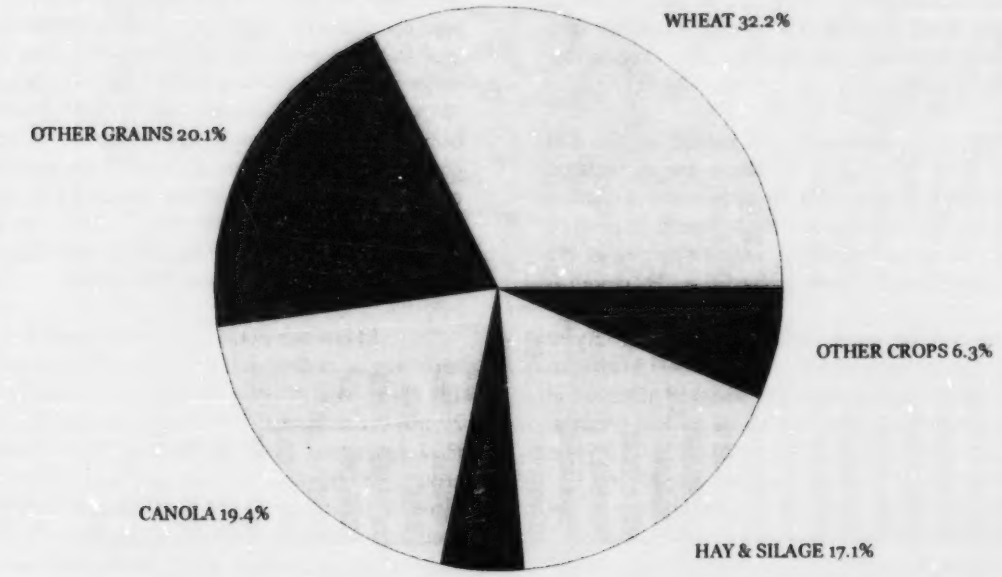
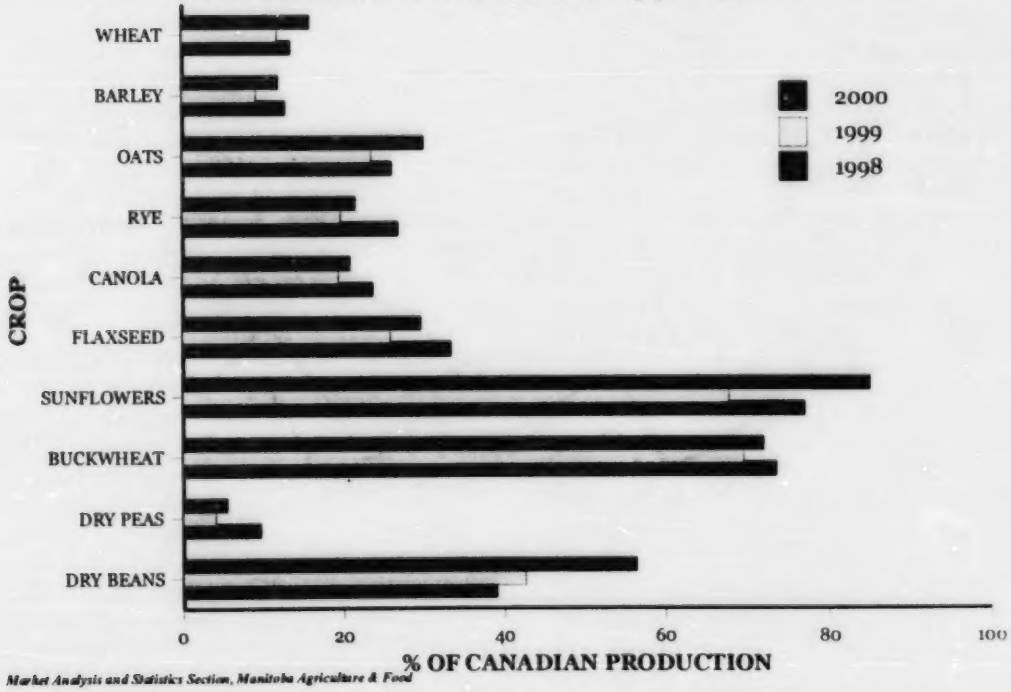
AREA OF CROPS PLANTED

2000



Source: Statistics Canada *Market Analysis and Statistics Section, Manitoba Agriculture & Food*

CROP PRODUCTION AS A PERCENTAGE OF CANADIAN PRODUCTION 1998 - 2000



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The harvested area and production of **canola** declined to 934 800 hectares and 1 487 800 tonnes in 2000, six and 13 percent below the 1999 level. The smaller canola crop led to a lower value of production of $357 million in 2000, making canola Manitoba's second most valuable crop after wheat. Canola was the most valuable crop in the province from 1997-1999.

Manitoba's **sunflower** area peaked at 153 800 hectares in 1979. Since then, problems due to weather, disease and insects have reduced the sunflower area planted. In 2000, about 58 700 hectares were harvested to produce 101 800 tonnes of sunflowerseed, only 49 percent of the record 1979 crop, but 22.8 percent above the 1999 crop.

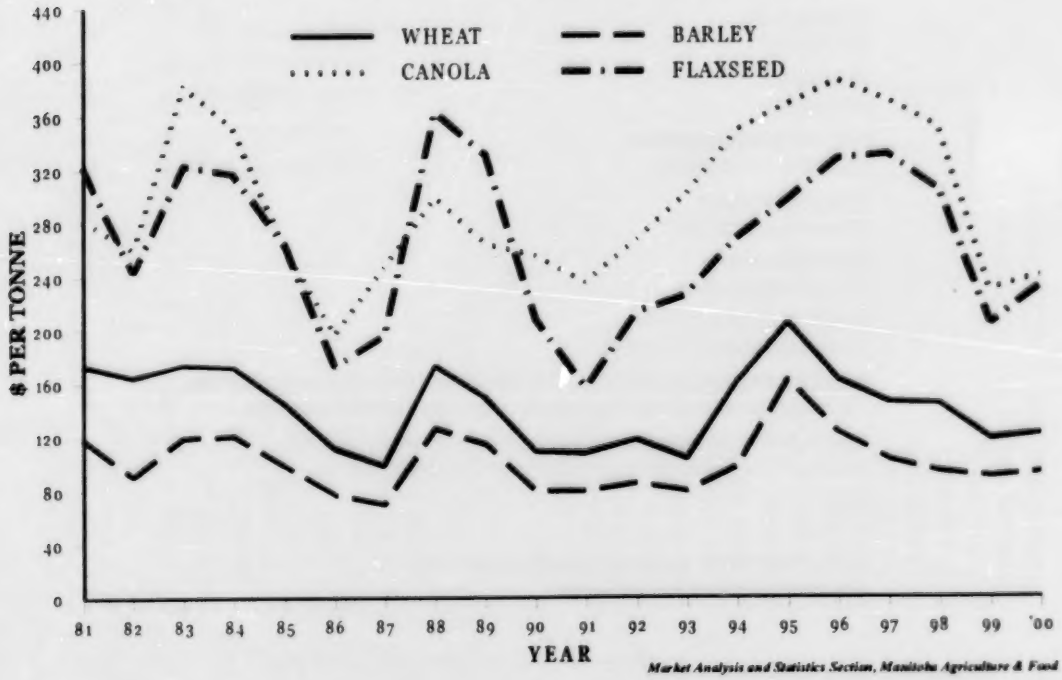
The mix of crops and area seeded each year usually depend on anticipated market prices relative to production costs. The area seeded to wheat in Manitoba in 2001 will increase by 1.3 percent to 1.6 million hectares, while the barley area could fall by 2.0 percent to 0.5 million hectares. Plantings of flaxseed may decrease to 160 000 hectares and the canola area planted could drop by 19 percent to 770 000 hectares.

Manitoba is not only an important source of grains and oilseeds, but is also a major area for the production of **specialty crops** in Canada. A total of 220 000 hectares of specialty crops as well as 52 600 hectares of **grain corn** were harvested in Manitoba in 2000. Increased areas of buckwheat, canary seed, dry beans, dry peas and mustard seed contributed to higher production of these crops. Most specialty crop prices declined from1999. One of the two major buckwheat-producing provinces, Manitoba supplied 72 percent of the Canadian crop in 2000. Manitoba's dry bean production was more than 56 percent of the national crop. Almost five percent of Canada's dry pea crop, about two percent of the lentils and ten percent of the canary seed crop were produced in Manitoba. In 2001, specialty crop and grain corn plantings respectively are expected to be about six and 30 percent lower than in 2000.

Manitoba's **potato and other vegetable** industries have been expanding over the years. The province has over 150 commercial potato producers (with over 25 hectares), 20 major commercial vegetable producers and about 300 market gardeners (with over one-half hectare) who employ about 2,000 full-time and seasonal farm workers. The area seeded to potatoes and other vegetables in 2000 was 31 600 hectares and about 1 800 hectares respectively. Production of **potatoes, vegetables, fruit, mushrooms, sod, flowers and nursery products** was valued at $211.2 million in 2000, a rise of 13.7 percent from $185.6 million in 1999.

SELECTED CROP PRICES

1981 - 2000



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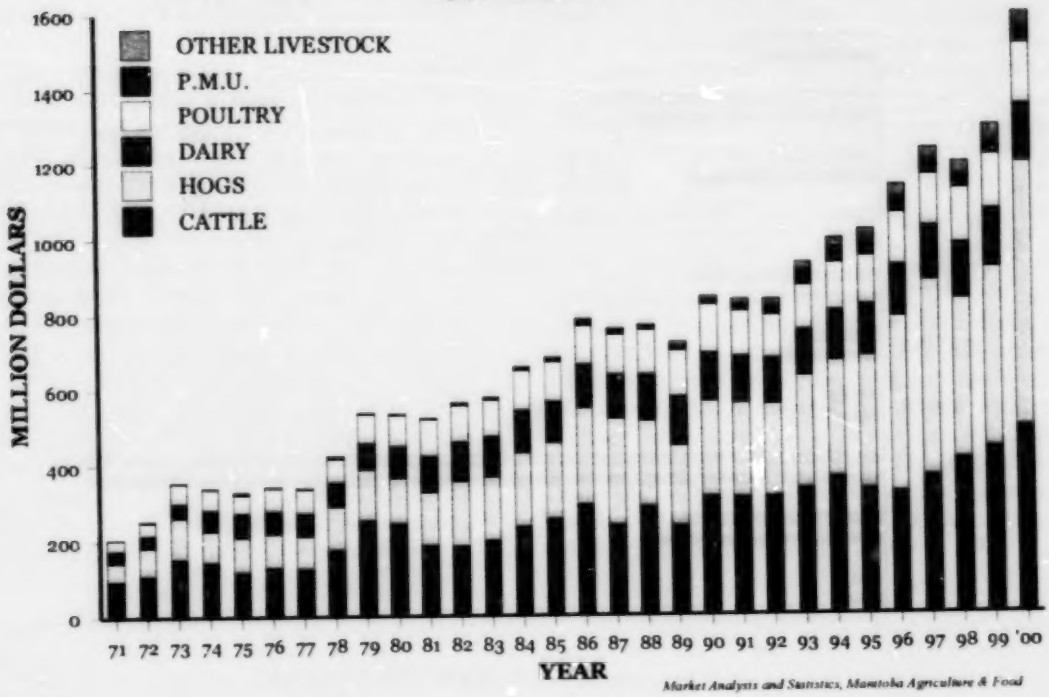
FARM VALUE OF LIVESTOCK PRODUCTION

1971-2000



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Livestock

The Manitoba livestock industry contributed $1.56 billion or 50.2 percent of total farm cash receipts in 2000, a rise of 18 percent from 1999 to a new record level.

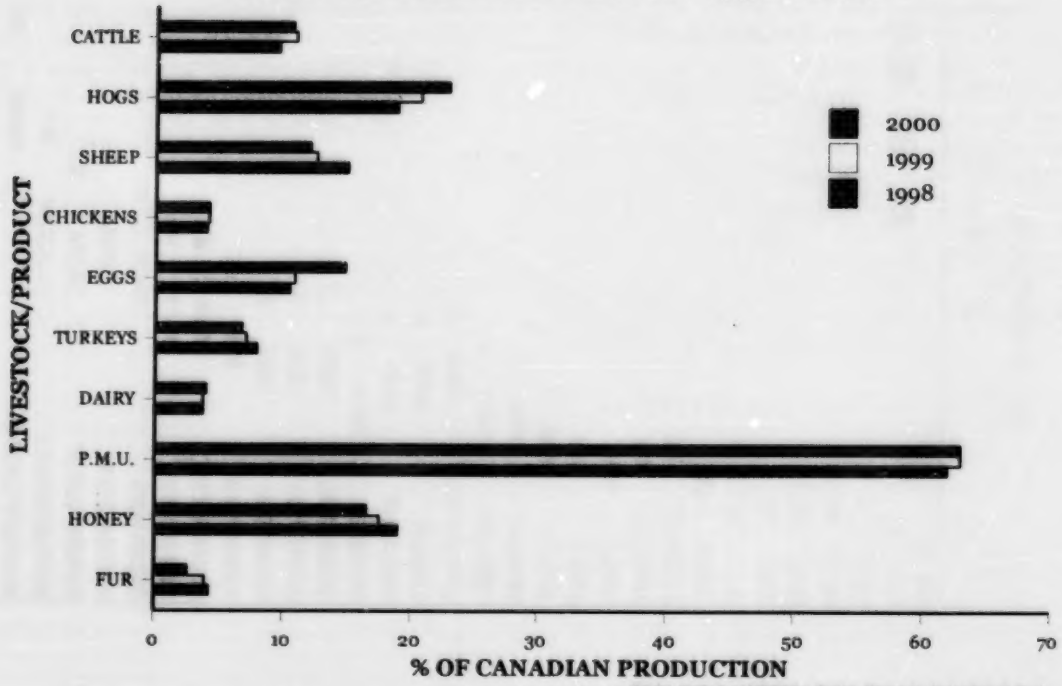
In 2000, the province had 11 percent of total beef cattle and calves in Canada, more than 12 percent of the beef cows, over four percent of the dairy cows, eight percent of the sheep and lambs and 15 percent of the horses. Manitoba produced 23 percent of Canadian hogs, almost five percent of the chickens, seven percent of the turkeys, most of the geese, about four percent of the ducks and 14 percent of Canada's chicken egg production. As less than four percent of Canada's population lives in Manitoba, the province is a surplus supplier of livestock products.

Marketings of **cattle and calves** amounted to 32 percent of livestock product sales and provided 16 percent of total farm cash receipts in 2000. Beef cattle followed hogs and wheat as the third most valuable farm commodity in 2000. Prices for Manitoba's cattle and hogs depend on prices in the United States and, to a lesser extent, in Alberta and Ontario. Thus, local prices tend to be variable, depending on the supply and demand for red meats particularly in the major markets of the U.S., Ontario and Quebec The situation makes management decisions difficult for producers affected by price and income instability.

Declining per capita beef consumption from the peak year of 1976 and variable profitability from beef production resulted in a decrease in the Manitoba cattle herd from 1977 to 1987. In response to higher calf prices, the beef cow herd steadily increased by an average annual rate of about two percent from 1987 until 1991 and then by an annual average rate of almost six percent to reach 566,000 head in 1997. The herd declined to 554,000 head in 1999 and 2000. Due to higher prices, the value of cattle and calf production rose to $500 million in 2000. The total number of cattle slaughtered in Manitoba packing plants peaked at 581,000 head in 1976. The closing of five cattle slaughter facilities since 1979 reduced local slaughter capacity to about 17,000 head in 2000. Sales of cattle and calves to the United States and Alberta have risen over the years.

Manitoba **hog** production rose to 1,358,000 head in 1970 but fell to 870,000 head in 1975. Becoming one of Canada's most cost-effective areas for hog production, Manitoba's hog industry grew significantly in the 1990s. By 2000, hog production had exceeded 5.35 million head, valued at $700 million, to become the province's most valuable agricultural commodity. Manitoba's share of the Canadian hog market declined from 13 percent in 1971 to less than nine percent in 1982 as hog production shifted to the central Canadian provinces, particularly Quebec.

LIVESTOCK PRODUCTION AS A PERCENTAGE OF CANADIAN PRODUCTION 1998 - 2000



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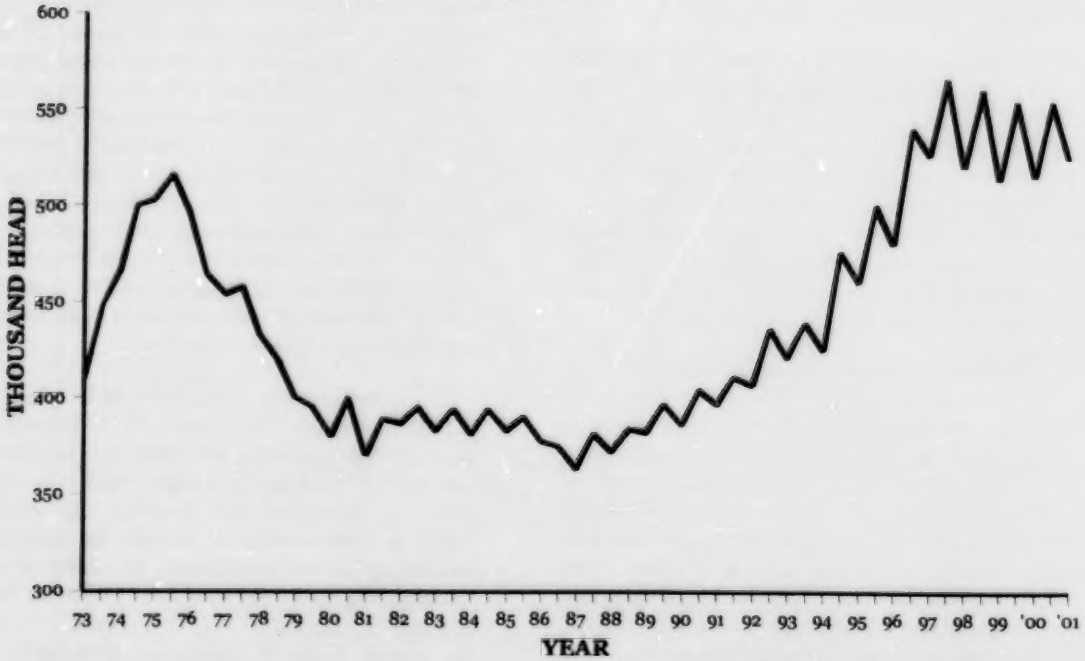
BEEF COWS ON FARMS

1973-2001



Data source: Statistics Canada

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However in 1999 and 2000, Manitoba's share of national hog production rose to 20.8 and 23.0 percent respectively.

The **sheep** industry is much smaller than that of cattle and hogs. The number of sheep on Manitoba farms peaked at 81,300 head in 1961, but had declined to 22,000 head by 1988. Higher prices in the 1990s increased interest in lamb production and feeding, raising the provincial sheep and lamb inventory to 78,800 head in mid-2000. Less than five percent of the lambs produced in Manitoba in 2000 were slaughtered in provincially-inspected packing plants. A number of producers sell their sheep or lambs privately to the consumer or through brokers mainly to Ontario and the United States. Wool sales fell by ten percent to $26,000.

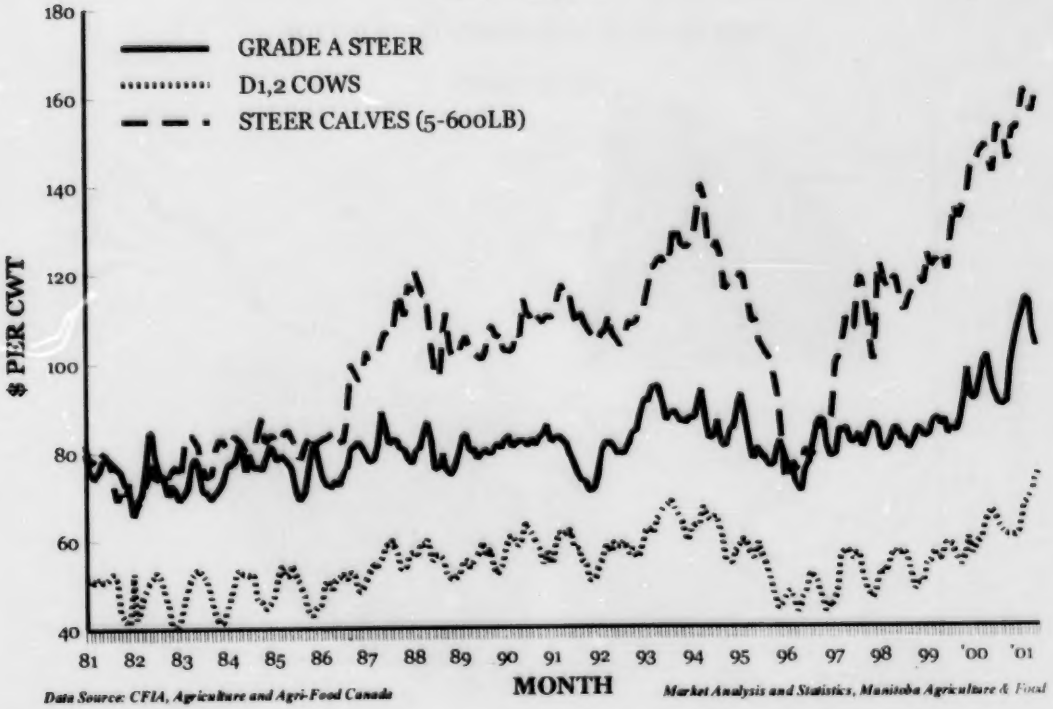
In 2000, about 35,000 Manitoba **dairy** cows within the supply management (quota) system produced 293.8 million litres of milk/cream valued at $156.2 million (including supplementary payments). This was a 0.5 percent increase from the value in 1999. Milk and cream sales were five percent of total farm cash receipts for the province.

The value of Manitoba **turkeys, chickens** and **eggs** (for consumption) sold in 2000 amounted to $18.2 million, $56.0.million and $72.9 million respectively, up by 6.6 percent, 1.5 percent and 22.3 percent from the previous year. Manitoba's goose industry, one of the largest in Canada, declined in 2000. Sales of **geese and ducks** were valued at only about $0.3 million in 2000. Most expansion in the poultry sector has occurred primarily to supply new and expanding export markets for poultry and egg products.

Manitoba farmers also produce such diverse commodities as honey and beeswax ($10.1 million), alfalfa leafcutting bees ($6.9 million), bison ($14 million), elk and deer ($1.3 million), fox and mink ($1.2 million), goats for milk and meat ($1.3 million), pregnant mare's urine and horse sales ($56.6 million), llamas and alpacas ($0.6 million), ratites - ostriches, emus and rheas - ($0.8 million), pheasants ($0.4 million), rabbits ($0.2 million) and wild boars ($1.2 million). The total value of production of these animals, birds or their products in 2000 was close to $95 million, down from $99 million in 1999.

CATTLE PRICES BY MONTH

1981 - 2000



Data Source: CFIA, Agriculture and Agri-Food Canada

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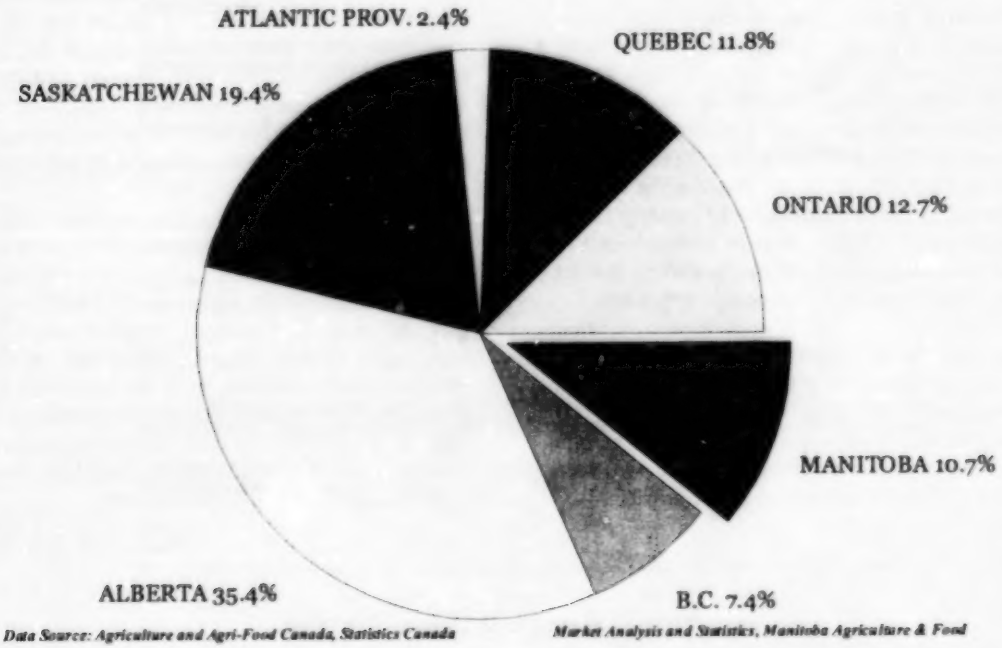
CATTLE/CALF PRODUCTION BY PROVINCE

2000

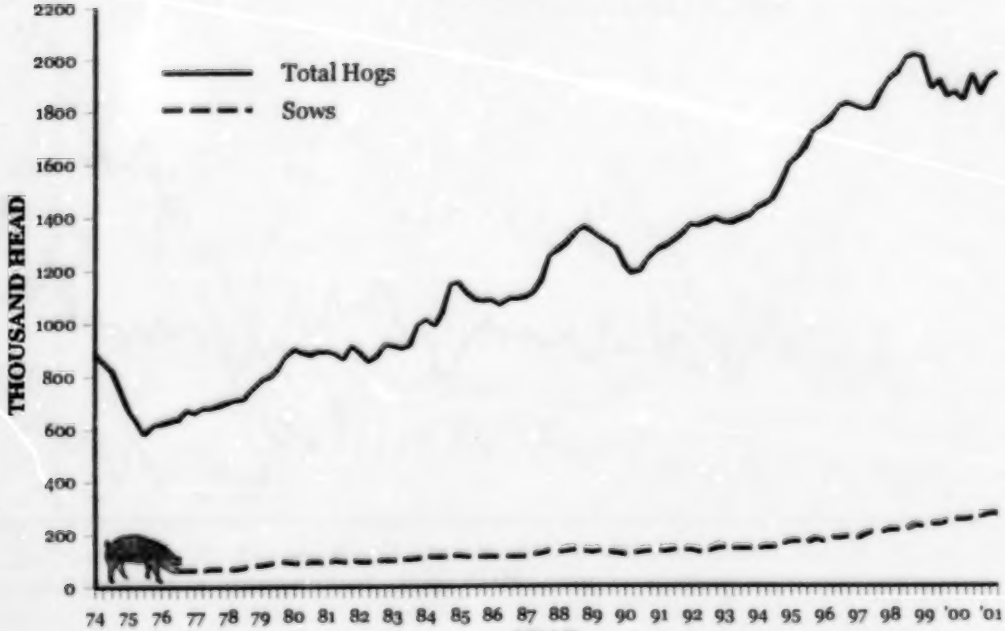


Data Source: Agriculture and Agri-Food Canada, Statistics Canada

Market Analysis and Statistics, Manitoba Agriculture & Food

HOGS ON FARMS BY QUARTER

1974-2001



Source: Statistics Canada

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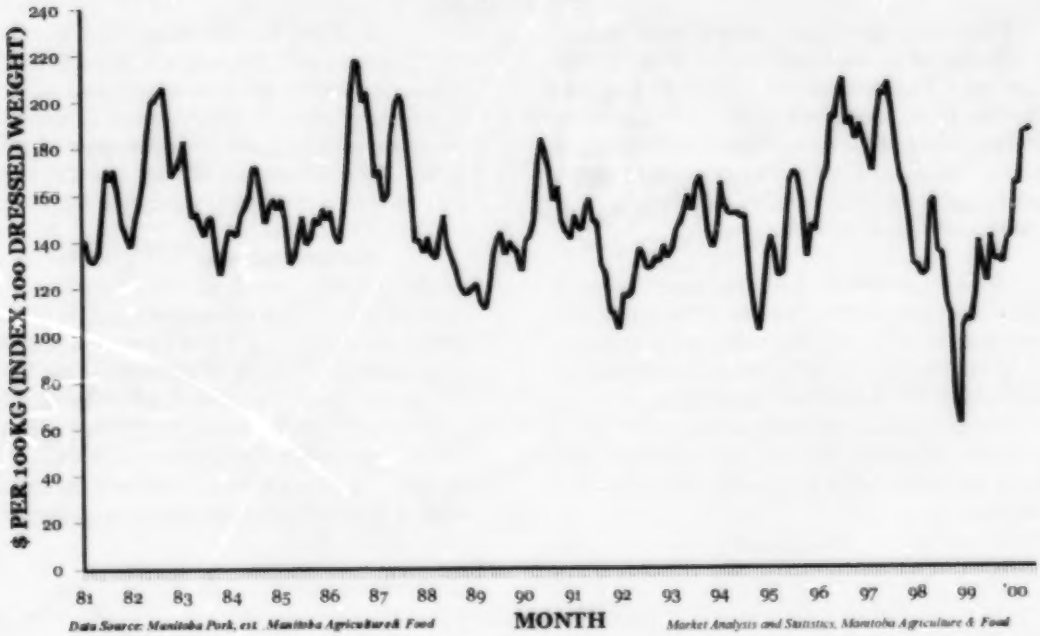
HOG PRICES BY MONTH

1981 - 2000

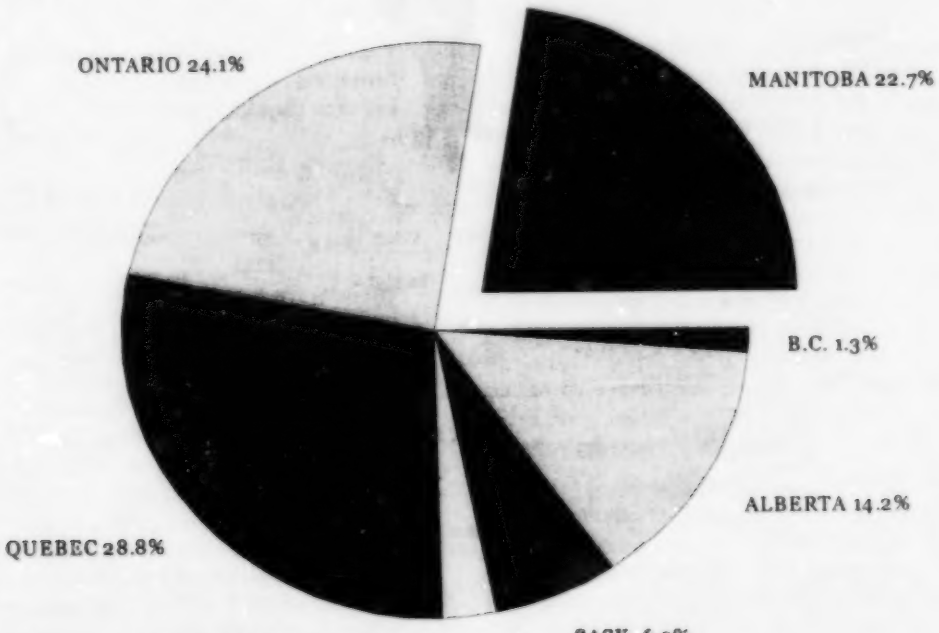


Data Source: Manitoba Pork, est. Manitoba Agriculture& Food

Market Analysis and Statistics, Manitoba Agriculture & Food

HOG PRODUCTION BY PROVINCE

2000



Data Source: Statistics Canada, Agriculture and Agri-Food Canada
Market Analysis and Statistics, Manitoba Agriculture & Food

AGRICULTURAL TRADE

Manitoba's agricultural exports were shipped, mainly unprocessed or semi-processed, to other Canadian provinces and 117 countries in 2000. Manitoba uses about 15-18 percent of the wheat, almost half of the barley and less than 40 percent of the oats produced in the province, the remainder being sold in various forms to other Canadian provinces or other countries. Most of the canola seed, oil and meal Manitoba produces are exported.

About 94 percent of Manitoba cattle and calves marketed and approximately 92 percent of the hogs sold in 2000 were sent out of the province, either live or as meat or meat products. Almost all of the turkeys, chickens and eggs produced in Manitoba in 2000 were consumed or processed locally. Hatching eggs and increasing amounts of processed egg products, including albumin and enzymes, were exported to the United States with smaller amounts sold to other countries.

In 2000, the value of agri-food exports increased by 3.2 percent to $2,504.6 million. About $863.7 million of Manitoba livestock and livestock products were sent out of the country, while $1,640.9 million of unprocessed and processed grains, oilseeds and other crops were exported in 2000. Agri-food exports are one of the largest single sources of foreign exchange earnings in Manitoba.

Manitoba imported $25.0 million of dairy and poultry products, $60.3 million of fresh and processed vegetables and dry legumes, $74.5 million of unprocessed grains and oilseeds, $70.9 million of cereal and bakery products, $103.9 million of animal feeds and $47.4 million of meat and meat products in 2000, much of which could have been produced in Manitoba. However, given the lower labour costs and better weather conditions in exporting countries, it may not be economically feasible to reduce imports of some foods, such as fresh vegetables in winter.

EXPORTS OF MANITOBA AGRICULTURAL PRODUCTS AND FOOD TO USA, 2000

($ million)

Source: USDA, Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

EXPORTS OF AGRICULTURAL PRODUCTS AND FOOD, 2000

($ million)

Total = $2,504.6 Million

Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

IMPACT OF AGRICULTURE ON THE PROVINCIAL ECONOMY

While the relative importance of primary agriculture in the provincial economy has varied considerably from year to year, the total economic impact of the agri-food industry is significant.

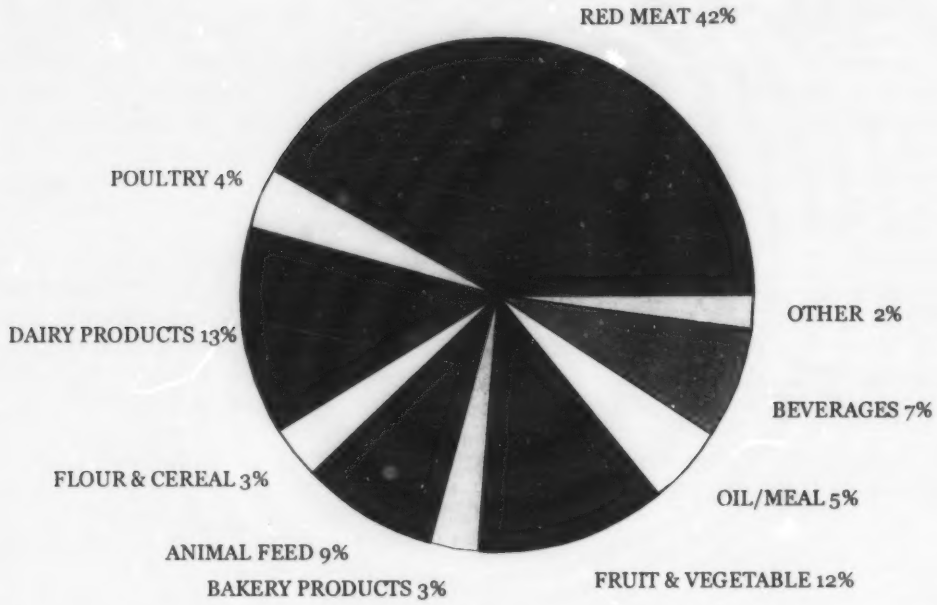
CONTRIBUTION OF FOOD PROCESSING

The food and beverage processing industry includes the slaughtering and/or processing of red meat and poultry, fruit and vegetables, cereal products, seed, dairy products, vegetable oils, feed and beverages. It is one of the most important manufacturing industries in Manitoba, producing almost $3.0 billion of goods and services in 1999 and an estimated $3.3 billion in 2000, or about 26 percent of the total manufacturing output in the province. In 1998, the food and beverage processing industry employed 6,950 administrative, production and related workers with wages of $209.5 million, a decrease of 670 employees and $11.6 million in wages from the 1997 level. In 2000, the estimated number of workers increased to 8,000. About $1.65 billion worth of inputs went into the industry in 1998 and generated an added value of $0.70 billion.

Meat and poultry slaughtering and processing, the largest sector, produced $701.1 million of meat and meat products in 1998 and over $1,500 million in 2000. The sector employed 2,605 people with wages totalling $72.3 million in 1998, but the numbers rose in 1999 and 2000. Raw inputs, cattle, hogs and poultry, accounted for over 80 percent of the meat processing industry's total cost of materials and supplies of $454.9 million in 1998. About 74 percent of the hogs and all of the cattle and poultry slaughtered in the province in 2000 originated in Manitoba. A large portion of the sector's output consisted of pork, most of which was sold to other provinces, U.S.A., Japan and 36 other countries. Record pork exports of 139 800 tonnes were valued at $398.2 million in 2000, while beef exports were valued at only $6.9 million.

Technological changes in animal slaughter and meat production have contributed to the rationalisation of the meat packing industry over the years. A hog slaughter plant, Springhill Farms, Ltd., was built in Neepawa in 1986. Canada Packers closed its Winnipeg slaughter plant in early 1987, which reduced Manitoba's cattle slaughter capacity by about 40 percent. Further reduction in cattle and hog slaughter capacity occurred in March 1990 when East West

FOOD AND BEVERAGE PROCESSING INDUSTRY
2000 (est.)



Packers was forced to close. Burns Meats (purchased by Maple Leaf Meats) closed its Brandon cattle slaughter plant in November 1990 and shut down its Winnipeg cattle kill line in late 1997. Maple Leaf Pork and J.M. Schneider Inc. significantly increased their hog slaughter and processing capacity in 1998 and 1999. The closure of one poultry slaughter facility in late 1995, one in 1997 and a secondary processing facility in 1998 has not reduced chicken and turkey slaughter in the province.

Egg processing in Manitoba, mainly by Canada's largest processor, Canadian Inovatech, has been increasing.

Other important food processing sectors include dairy, oilseed crushing, bakery, animal feed, beverage and potato processing. The province's **feed industry** employed about 800 production and administrative staff with sales estimated at $290 million in 2000. Principal inputs for the industry are barley, feed wheat and canola meal. Smaller amounts of dry peas and corn are also used. Much of the corn and canola meal produced in Manitoba is used locally by the feed industry. Grain used to produce ethanol at a plant in Minnedosa provides mash for feed as by-product. Large quantities of feed corn and soybean meal are imported from the United States.

Almost 85 percent of Manitoba's potato crop is used for processed foods, such as frozen French fries and hash browns, instant mashed potatoes and potato chips. Sales by the three major and two smaller **potato and other vegetable processing plants**, which employ over 900 people, were estimated at about $400 million in 2000.

Three **fluid milk** and fourteen **industrial milk and cheese plants** employed 470 workers in 2000 and produced fluid milk, valued at $180 million, and cream, cheese, butter, ice-cream and other dairy products, valued at $250 million. Total cost of inputs was about $340 million.

There are three **oilseed crushing plants**. One is located at Altona and another at Harrowby on the Saskatchewan border. An oilseed crushing plant was built in Ste. Agathe in 1998, but is not in production. In past years, most of the sunflowerseed and canola crushed at Altona came from Manitoba, but the smaller canola crops in 1999 and 2000 led to increased imports of seed. Output from the plants includes bulk crude and refined oil, bulk vegetable oil, retail pack refined oil, hulls and screenings.

Although most of Manitoba's food-quality wheat and other grains are exported, some are processed locally. The province's 26 **flour mills and bakeries** employed about 1,000 people to produce an estimated $50 million worth of flour and cereals and $80 million of bread and other bakery products in 2000. A flour mill was constructed at Elie for Prairie Flour Mills in 1997, the first new mill in the province for many years. There are two oat processing facilities, one at Portage la Prairie and one at Emerson.

The Isobord Enterprises straw particle-board plant built at Elie utilises about 185 000 tonnes of straw per year from the surrounding area. The plant employed about 100 people when it became fully operational in 1998.

The province's **beverage industry** employed approximately 700 people and produced beer, wine, soft drinks and spirits valued at about $215 million in 2000. The distillery at Gimli uses about 40 000-50 000 tonnes (1.8-2.0 million bushels) of grain corn annually. Establishment of the plant at Gimli was based on the availability of high quality and abundant supplies of water and the use of top quality grain corn, most of which is supplied by Manitoba farmers.

In Manitoba, the manufacture of pharmaceutical and medicinal products, valued at about $175 million in 2000, often involves the use of agricultural products, such as pregnant mares' urine, eggs, horseradish and other crops.

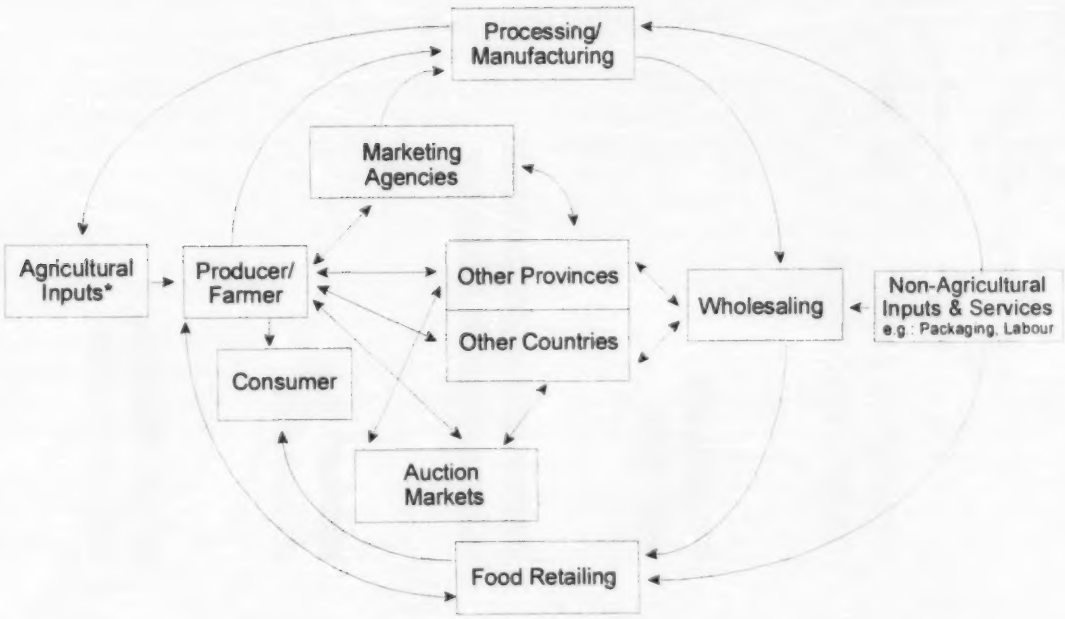
CONTRIBUTION OF AGRICULTURAL INDUSTRIES

About 30 Manitoba **implement manufacturing companies** are directly associated with agriculture. The companies employ about 2,000 workers and produce almost $1 billion worth of equipment. For the manufacture of implements, the companies in turn purchase $650 million in inputs and contributed $350 million in value added to the final product. The total value of this contribution to the provincial economy is not solely attributable to Manitoba agriculture. However, it indicates the significance of this sub-unit to the agricultural sector of Manitoba's economy.

In addition to the 30 companies directly linked to agricultural equipment manufacturing, numerous firms are more indirectly associated with the agriculture equipment industry. These firms produce inputs for agriculture as a secondary output of their operation or as input into a larger agricultural manufacturing operation. The total value of this contribution to the agriculture sector is estimated at over $100 million. The associated labour force is estimated at about 1,000.

There were 176 **licensed dealer establishments** selling farm machinery and associated equipment and providing service facilities in March 2001. In addition, 103 **licensed vendors** supplied farm machinery and equipment repair parts to licensed dealers in the province, 12 more than a year earlier. A number of unlicensed facilities provide repair services for farm equipment. The total value of repair and servicing of farm machinery contributed an estimated $218 million to the provincial economy in 2000, up from $209 million a year earlier.

MANITOBA AGRI-FOOD SYSTEM



CONTRIBUTION OF SERVICE SECTOR

Manitoba agriculture depends on various service industries. These industries include transportation, finance, insurance, construction and real estate. In addition, federal and provincial governments provide farmers with services such as extension, regulatory, research and development, financial and infrastructure. An estimated one percent of total provincial **transportation** expenditures involves the movement of agricultural products, raw or processed. Farm expenditures on **financial, insurance** and **real estate services** amount to approximately ten percent of total expenditures for these services. About seven percent of Manitoba's **construction** takes place on farms or is for agriculture-related industries. Manitoba farms and agri-food industry use ten percent of the total **electric power,** about 44 percent of the **chemicals** and almost 23 percent of total **gasoline and fuel oil** consumed in the province.

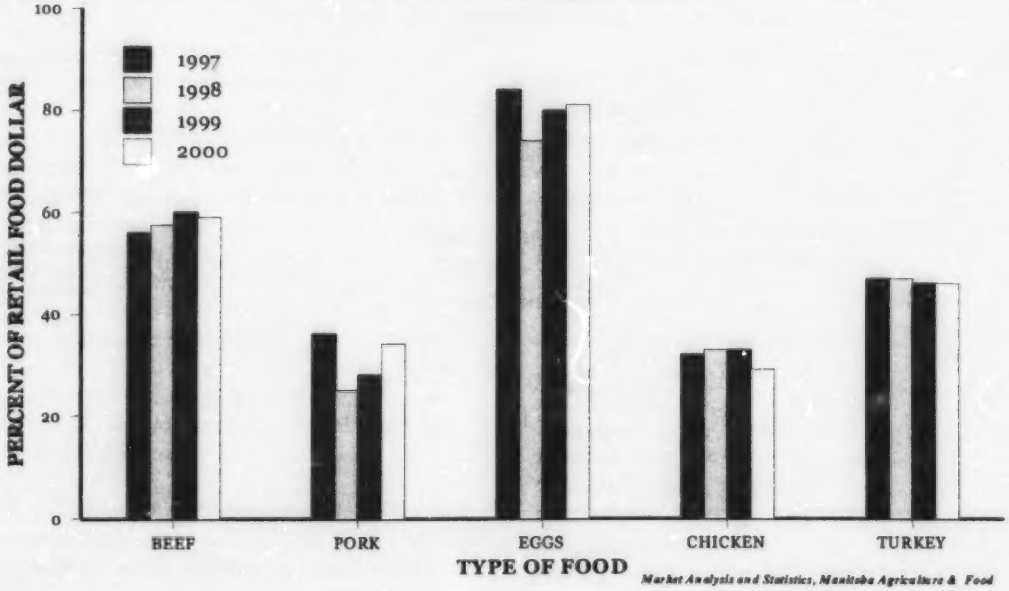
Although a portion of the food consumed by Manitobans is imported from other provinces or countries, about half of the food sold by Manitoba's **grocery** and other **food** stores is derived from products grown and processed in Manitoba. Thus, a portion of the retail margins from these stores can be included with agriculture's contribution to the provincial economy. In 2000, Manitoba's close to 1,300 grocery and other food stores had $2.34 billion in total sales volume, an increase of 7.0 percent from the previous year. Gross margins and net profits amounted to about 20 percent ($470 million) and one percent ($23 million) respectively. It is estimated that 50 percent ($235 million) of value added to foods purchased by retailers, is an indirect contribution of agriculture to the economy. Food wholesaling activities also contribute to the economy.

For livestock products such as beef, pork, chicken, turkey and eggs, about 29 to 81 percent of the **consumers' food dollar** goes to the livestock producer, depending on the extent of processing and merchandising required for each commodity. In 2000, an egg producer received more than 81 percent of the retail price of eggs, while a broiler chicken producer received about 29 percent of the amount a consumer paid for chicken. Processing and merchandising costs and wastage are greater for chickens than for eggs.

TOTAL IMPACT OF AGRICULTURE

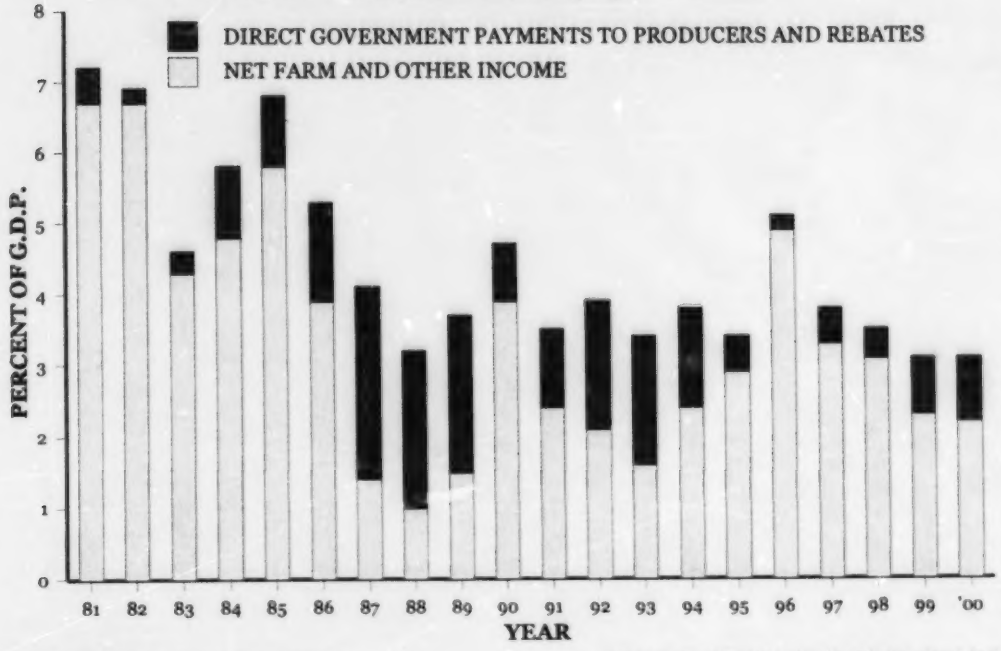
One measure of provincial output is the Gross Domestic Product (GDP) at factor cost, which is basically an aggregate of net profits and incomes, including wages, depreciation and investment income. Agriculture's **direct contribution to the GDP** was 7.2 percent in 1981, 6.9 percent in 1982 and 4.6 percent in 1983. Net farm income improved so that agriculture's contribution to the GDP rose

MANITOBA FARMERS' SHARE OF RETAIL PRICE OF FOOD, 1997 - 2000



Market Analysis and Statistics, Manitoba Agriculture & Food

CONTRIBUTION OF PRIMARY AGRICULTURE TO MANITOBA G.D.P., 1981 - 2000



Source: Statistics Canada, Manitoba Bureau of Statistics *Market Analysis and Statistics Section, Manitoba Agriculture & Food*

to 5.8 and 6.8 percent in 1984 and 1985, but declined to 5.3 percent in 1986. Despite increased government assistance, particularly to grain producers, the contribution to the GDP further declined to between 3.2 and 4.7 percent during the period 1987 to 1995. With improved net farm income in 1996, the contribution rose to 5.1 percent, but declined to 3.5 percent in 1998 and 3.1 percent in 1999 and 2000 when net farm incomes fell. *Without government assistance*, agriculture's contribution to the GDP ranged between 1.0 and 3.8 percent during the years 1987 to 1995, but rose to 4.9 percent in 1996 as government payments to producers fell when returns from the marketplace increased. Lower crop sales and prices resulted in primary agriculture's share of the GDP falling to 2.3and 2.2 percent in 1999 and 2000.

Agriculture also makes an indirect contribution to the provincial economy through income derived from agriculture-connected industries. These include the food and beverage processing industry, industries which supply inputs to agriculture, as well as wholesale, retail and other service sector components which supply services to farmers and other agriculture-related workers. When agriculture's **indirect contribution to the GDP** was added to its direct contribution, an estimated 9.6 percent of Manitoba's GDP was attributed to agriculture in 2000 compared to 9.5 percent in 1999, 10.8 percent in 1998 and a fifteen-year high of 13.8 percent in1996.

For every dollar of net income produced by primary agriculture in Manitoba, about $1.90 is generated in the overall Manitoba economy.

Agriculture, directly or indirectly, accounted for more than one dollar in ten of production in Manitoba's economy in 2000.

Another method of assessing agriculture's impact on Manitoba's economy is to compare the **added value for agricultural inputs** to that for the goods producing sector as a whole. In 2000, 10.4 percent of total added value was provided by agriculture compared with 10.2 percent a year earlier and a peak for the decade of 16.5 percent in 1996.

In 2000, 33,300 people were directly employed in Manitoba's agricultural industry. In addition, about 18,300 persons were employed in other areas of the provincial economy as a direct result of the agricultural industry, bringing **total employment generated by agriculture** to 9.3 percent of Manitoba's employed labour force in 2000. This means that about one job in eleven was the result of agricultural production. For every nine jobs created on farms in 2000, five jobs were created in other areas of the Manitoba economy. In addition to stimulating employment locally, agriculture in Manitoba is directly responsible for thousands of jobs in other parts of Canada.